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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/826,310

04/19/2004

Yong Sung Ham

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EXAMINER

LIANG, REGINA

ART UNIT

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2629

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/826,310	Applicant(s) HAM, YONG SUNG	
	Examiner Regina Liang	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8,15-18,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8,15-18,20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
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| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/3/08 has been entered.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 2, 5-8, 15-18, 20 21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 6,788,280 in view of the admitted prior in U.S. Patent No. 6,788,280.

The following is an example for comparing claim 7 of this application and claim 4 of U.S. Patent No. 6,788,280.

Claim 7 of this application	claim 4 of U.S. Patent No. 6,788,280
An apparatus for driving a liquid crystal display, comprising:	An apparatus for driving, a liquid crystal display, comprising:
a modulator that receives and registers first source data for display by liquid crystal cells of a liquid crystal panel during a first frame period, receives second source data for display by the liquid crystal cells during a second frame period subsequent to the first frame period, and that generates modulated data for each of the liquid crystal cells according to a comparison result between the registered first source data corresponding to the respective liquid crystal cell and the second source data corresponding to the respective liquid crystal;	a modulator modulating source data using registered data previously provided therein; and wherein the modulator selects the registered data through a comparison of entire bits of the current and delayed source data,
and a data provider alternatively applying the modulated data and data different from the modulated data to a pixel electrode of each of the liquid crystal cells of the liquid crystal panel.	a data provider alternatively applying the modulated data and data different from the modulated data to the liquid crystal panel within one frame period.

As can be seen above, the patented claim 4 recites the modulated data is generated by a comparison of entire bits of the current and delayed source data while claim 7 recites the modulated data is generated by a comparison of first source data receiving during a first frame period and second source data receiving during a second frame period subsequent to the first frame period. However, it is well known in the art that the modulated data is generated by a comparison of first source data receiving during a first frame period and second source data receiving during a second frame period subsequent to the first frame period (Fig. 4, admitted prior art in the patent). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the patented claim 4 to generate the modulated data by comparing first source data receiving during a first frame period and second source data receiving during a second frame period subsequent to the first frame period so as to provide a high-speed driving method compensates for a slow response time of the liquid crystal by modulating a data value in order to alleviate a motion-blurring phenomenon in a moving picture thereby display a picture at desired color and brightness.

4. Claims 1, 2, 5-8, 15-18, 20 21 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-16 of U.S. Patent No. 7,161,575 in view of the admitted prior in U.S. Patent No. 7,161,575.

The following is an example for comparing claim 7 of this application and claim 15 of U.S. Patent No. 7,161,575.

Claim 7 of this application	claim 15 of U.S. Patent No. 7,161,575
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An apparatus for driving a liquid crystal display, comprising:	A liquid crystal display comprising: a liquid crystal display panel;
a modulator that receives and registers first source data for display by liquid crystal cells of a liquid crystal panel during a first frame period, receives second source data for display by the liquid crystal cells during a second frame period subsequent to the first frame period, and that generates modulated data for each of the liquid crystal cells according to a comparison result between the registered first source data corresponding to the respective liquid crystal cell and the second source data corresponding to the respective liquid crystal;	a data modulator that modulates source data and supplies the modulated source data to the liquid crystal display during a first period within a frame interval, wherein the data modulator selects a gray scale voltage level corresponding to the source data;
	a delay circuit that delays the source data during the first period and supplies the delayed source data to the display panel during a second period within the frame interval; and a black voltage generator that generates a black voltage data allowing a black picture on the display panel during a third period within the frame interval;

and a data provider alternatively applying the modulated data and data different from the modulated data to a pixel electrode of each of the liquid crystal cells of the liquid crystal panel.	a switch that switches the modulated source data and the black data; a data driver that applies the modulated source data and the black data from the switch to the liquid crystal panel;
	a scanning driver that applies scanning signal to the liquid crystal display panel; and a timing controller that applies the source data to the modulator and controls the data driver, the scanning driver, and a switching time of the switch, wherein the first period, the second period, and the third period do not overlay each other.

As can be seen above, claim 7 is broader version of patented claim 15. Patented claim 15 differs from claim 7 in not reciting the modulated data is generated by a comparison of first source data receiving during a first frame period and second source data receiving during a second frame period subsequent to the first frame period. However, it is well known in the art that the modulated data is generated by a comparison of first source data receiving during a first frame period and second source data receiving during a second frame period subsequent to the first frame period (Fig. 4, admitted prior art in the patent). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the patented

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claim 15 to generate the modulated data by comparing first source data receiving during a first frame period and second source data receiving during a second frame period subsequent to the first frame period so as to provide a high-speed driving method compensates for a slow response time of the liquid crystal by modulating a data value in order to alleviate a motion-blurring phenomenon in a moving picture thereby display a picture at desired color and brightness.

Response to Arguments

5. Applicant's arguments with respect to claims 1, 2, 5-8, 15-18, 20 and 21 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Regina Liang whose telephone number is (571) 272-7693. The examiner can normally be reached on Monday-Friday from 8AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (571) 272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Regina Liang/
Primary Examiner, Art Unit 2629